



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,627	02/24/2004	Dieter Heldmann	HELDMANN ET AL.-I	2960
25889	7590	11/29/2005	EXAMINER	
WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			NOLAN, JASON MICHAEL	
			ART UNIT	PAPER NUMBER
			1626	

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/785,627

Applicant(s)

HELDMANN ET AL.

Examiner

Jason M. Nolan, Ph.D.

Art Unit

1626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-9 is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/9/04 & 5/27/04.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1-9 are currently pending in the application.

Priority

Acknowledgement is made of Applicant's claim for priority via foreign patent application Germany 103 08 580.7, filed on February 27, 2003.

Information Disclosure Statement

Applicant's information disclosure statements (IDS), filed on June 9, 2004 and May 27, 2004 have been considered. Please refer to Applicant's copies of the 1449 submitted herewith.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. § 103(a) are summarized as follows:

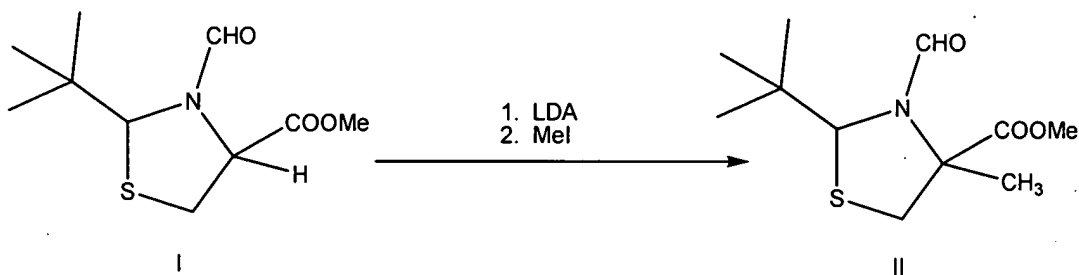
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 1626

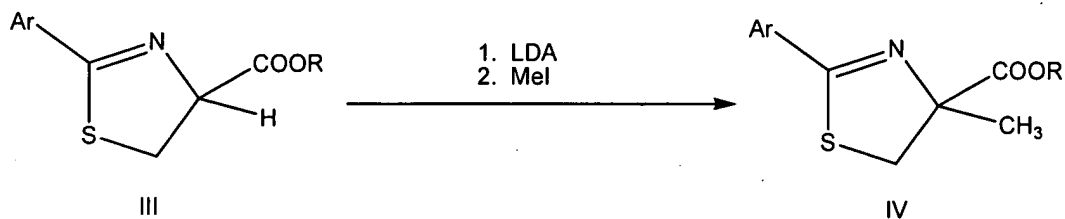
Claims 1 and 4-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Mulqueen et al. (*Tetrahedron* 1993, 49(24), 5359) and Krich et al. (*Austrian Patent Application A 1639/2001* 10/15/2001, for convenience see *US Patent* 6,894,170).

Determination of the scope and content of the prior art (MPEP § 2141.01)

Mulqueen et al. teaches the methylation of thiazolidine I affording compound II using lithium diisopropylamide and methyl iodide at -90°C in a solution of THF/DMPU.



Krich et al. teaches a method for methylating thiazolines III using lithium diisopropylamide and methyl iodide preferably from -30°C to $+35^{\circ}\text{C}$ to arrive at alkylated compounds IV, (see specification, column 4, line 9 through line 40).



Noteworthy in this reference is the object of finding a process which can be carried out on an industrial scale which guarantees the preparation of substituted thiazolines in higher yields (see specification, column 1, line 66) as well as utilizing the same starting material as the instant application for the process (see specification, column 3, line 13).

Art Unit: 1626

Ascertainment of the difference between the prior art and the claims (MPEP § 2141.02)

The difference between the prior art of Mulqueen et al. and the process of the instant application is that the process of the instant application is run at warmer temperatures. The difference between the prior art of Krich et al. and the process of the instant application is of the structures of compounds I and III. Although slightly different in structure, the difference is not at the reactive site of these compounds. The identical reactive site in both species (I and III) contains the most acidic hydrogen (alpha to the ester carbonyl carbon), which is deprotonated using lithium diisopropylamide to generate the corresponding enolate, which when treated with electrophiles such as iodomethane yields the desired products II and IV respectively.

Finding of prima facie obviousness--rational and motivation (MPEP § 2142-2413)

The optimization of variables, such as temperature, in a known process is *prima facie* obvious. *In re Boesch*, 205 USPQ 215 (1980).

One skilled in the art would thus be motivated to utilize the processes as taught by Krich et al. and Mulqueen et al. but vary temperatures to arrive at the instant claimed process with the expectation of optimizing a known process. Absent factual unexpected, unobvious, and beneficial results, the claimed invention would have been suggested to one skilled in the art and therefore, the instant claimed invention would have been obvious to one skilled in the art.

Claim Objections

Claims 2 and 3 are objected to as dependent upon a rejected base claim.

Claim 2 is objected to because of the following informalities: claims must end with a period. Appropriate correction is required.

Claim 3 is objected to because of the following informalities: claims must begin on a new line. Appropriate correction is required.

Conclusion

Claims 1 and 4-9 are rejected.

Claims 2 and 3 are objected to.

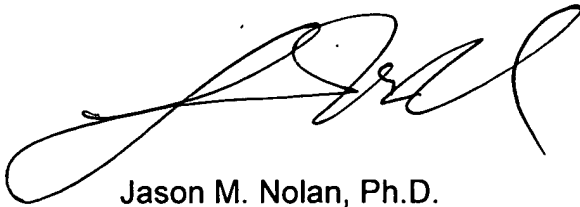
Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jason M. Nolan, Ph.D.** whose telephone number is **(571) 272-4356**. The examiner can normally be reached on Mon - Fri (9:00 - 5:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on (571) 272-0699. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

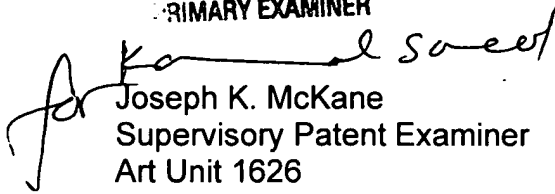
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 1626



Jason M. Nolan, Ph.D.
Examiner
Art Unit 1626

KAMAL A. SAEED, PH.D.
PRIMARY EXAMINER



Joseph K. McKane
Supervisory Patent Examiner
Art Unit 1626
Date: November 22, 2005